KVR18E13/8

8GB 2Rx8 1G x 72-Bit PC3-14900
CL13 ECC 240-Pin DIMM

DESCRIPTION

This document describes ValueRAM's 1G x 72-bit (8GB) DDR3-1866 CL13 SDRAM (Synchronous DRAM) 2Rx8, ECC memory module, based on eighteen 512M x 8-bit FBGA components. The SPD is programmed to JEDEC standard latency DDR3-1866 timing of 13-13-13 at 1.5V. This 240-pin DIMM uses gold contact fingers. The electrical and mechanical specifications are as follows:

FEATURES

- JEDEC standard 1.5V (1.425V ~1.575V) Power Supply
- VDDQ = 1.5V (1.425V ~ 1.575V)
- 933MHz fCK for 1866Mb/sec/pin
- 8 independent internal bank
- Programmable CAS Latency: 13, 11, 10, 9, 8, 7, 6
- Programmable Additive Latency: 0, CL - 2, or CL - 1 clock
- 8-bit pre-fetch
- Burst Length: 8 (Interleave without any limit, sequential with starting address “000” only), 4 with tCCD = 4 which does not allow seamless read or write [either on the fly using A12 or MRS]
- Bi-directional Differential Data Strobe
- Internal(self) calibration : Internal self calibration through ZQ pin (RZQ : 240 ohm ± 1%)
- On Die Termination using ODT pin
- On-DIMM thermal sensor (Grade B)
- Average Refresh Period 7.8us at lower than TCASE 85°C, 3.9us at 85°C < TCASE ≤ 95°C
- Asynchronous Reset
- PCB : Height 1.180” (30.00mm), double sided component

SPECIFICATIONS

CL(IDD)	13 cycles
Row Cycle Time (tRCmin)	47.125ns (min.)
Refresh to Active/Refresh Command Time (tRFCmin)	260ns (min.)
Row Active Time (tRASmin)	34ns (min.)
Maximum Operating Power	TBD W*
UL Rating	94 V - 0
Operating Temperature	0° C to 85° C
Storage Temperature	-55° C to +100° C

*Power will vary depending on the SDRAM used.

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MODULE DIMENSIONS: